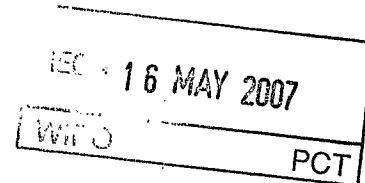


PATENT COOPERATION TREATY

PCT



INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 030014WO	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US03/32998	International filing date (day/month/year) 15 October 2003 (15.10.2003)	Priority date (day/month/year) 15 October 2002 (15.10.2002)
International Patent Classification (IPC) or national classification and IPC IPC: H04J 3/24 (2006.01) H04L 12/56(2006.01) USPC: 370/338,349,409		
Applicant QUALCOMM INCORPORATED		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets, including this cover sheet.
- ☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of ___ sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of report with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 14 May 2004 (14.05.2004)	Date of completion of this report 28 April 2007 (28.04.2007)
Name and mailing address of the IPEA/US Mail Stop PCT, Attn: IPEA/ US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201	Authorized officer Saba Tsegaye Telephone No. (571) 272-2600

I. Basis of the report1. With regard to the **elements** of the international application:*

- ☒ the international application as originally filed.
- ☒ the description:
pages 1-16 as originally filed
pages NONE, filed with the demand
pages NONE, filed with the letter of _____.
- ☒ the claims:
pages 17-20, as originally filed
pages NONE, as amended (together with any statement) under Article 19
pages NONE, filed with the demand
pages NONE, filed with the letter of _____.
- ☒ the drawings:
pages 1-3, as originally filed
pages NONE, filed with the demand
pages NONE, filed with the letter of _____.
- ☐ the sequence listing part of the description:
pages NONE, as originally filed
pages NONE, filed with the demand
pages NONE, filed with the letter of _____.

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages NONE
- ☐ the claims, Nos. NONE
- ☐ the drawings, sheets/fig NONE

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/US03/32998**V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. STATEMENT**

Novelty (N)

Claims 16 and 17 YESClaims 1-15 NO

Inventive Step (IS)

Claims NONE YESClaims 1-17 NO

Industrial Applicability (IA)

Claims 1-17 YESClaims NONE NO**2. CITATIONS AND EXPLANATIONS**

Please See Continuation Sheet

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Claims 1-7 lack novelty under PCT Article 33(2) as being anticipated by Chen (Lucent Technologies INC. EP 1096743 A1).

Regarding claims 1 and 14, Chen discloses a method in a wireless communication system, comprising: receiving a request for a data service session for a mobile node (see fig. 1); receiving an encapsulation configuration record assigning a packet service identifier to the data service session (paragraph 0032); assigning a micro-tunnel to the data service session for the mobile node, the micro-tunnel having a micro-tunnel identifier (paragraph 0020); and generating an encapsulation field in response to the encapsulation configuration record, the encapsulation field including the packet service identifier and the micro-tunnel identifier (paragraph 0022).

Regarding claims 2 and 15, Chen discloses a method in a communication system supporting data packet transmissions, the method comprising: identifying a first set of data packets for a destination using a first micro-tunnel identifier (0022); transmitting the first set of data packets with the micro-tunnel identifier (0045); identifying a second set of data packets for the destination using a second micro-tunnel identifier (0022); and transmitting the second set of data packets with the second micro-tunnel identifier (0045).

Regarding claim 3, Chen discloses the method further comprising: associating a first data packet treatment with the first micro-tunnel identifier; and associating a second data packet treatment with the second micro-tunnel identifier (0045).

Regarding claim 4, Chen discloses the method wherein, the first treatment and the second treatment are determined by quality of service requirements (0013; 0049).

Regarding claim 5, Chen discloses the method wherein the first data packet treatment does not allow any of the first set of data packet to be dropped (0027).

Regarding claim 6, Chen discloses the method wherein the first data packet treatment and the second data packet treatment are different (0046).

Regarding claim 7, Chen discloses the method further comprising: establishing a tunnel to the destination; wherein the first and second micro-tunnel identifiers identify a first and second micro-tunnel within tunnel (0011).

Regarding claim 8, Chen discloses the method further comprising: generating a header for the first set of data packets, the header including the micro-tunnel identifier (0011).

Regarding claim 9, Chen discloses the method wherein the header further includes a destination identifier (0011).

Regarding claim 10, Chen discloses the method wherein the micro-tunnel identifier and the destination identifier are part of a GRE key (0011).

Regarding claim 11, Chen discloses the method further comprising: receiving a configuration record identifying available micro-

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International application No.
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Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

tunnel identifiers for application to sets of data packets (0011).

Regarding claim 12, Chen disclose the method wherein the configuration record specifies available destination identifiers for identifying destinations (0011).

Regarding claim 13, Chen discloses the method wherein a first destination is a mobile node (see fig. 1).

Claims 16 and 17 lack an inventive step under PCT Article 33(3) as being obvious over Chen (Lucent Technologies INC. EP 1096743 A1).

Chen discloses all the claim limitation as stated above except for computer-readable instructions. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use software-based machines. The benefit using computer readable device is that programs can be changed and upgraded and new futures are added easily than hardware changes.

----- NEW CITATIONS -----

NONE